

CUSTOMER NO.: 24498
Serial No.: 10/564,569
Office Action Dated: April 1, 2009
Response dated: June 25, 2009

PATENT
PU030205

Remarks/Arguments

Applicants have reviewed the Office Action mailed April 1, 2009. Claims 1-16 now remain in this application. Applicants have added new claims 15 and 16 to provide them with the full measure of patent protection to which they deem themselves entitled. No new matter has been added. Applicants request reconsideration of the above-identified application in view of the following Remarks.

35 U.S.C. 102(b) Rejection of 1, 3, 6-7, 8-9, and 12-14
35 U.S.C. 103(a) Rejection of Claims 2 and 10
35 U.S.C. 103(a) Rejection of Claims 4, 5, and 11

Claims 1, 3, 6-7, 8-9, and 12-14 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,579,183 to Van Gestel et al. (hereinafter "Van Gestel"). Claims 2 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Van Gestel in view of U.S. Patent No. 7,106,749 to Darshan et al. (hereinafter "Darshan").

Claims 4-5 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Van Gestel. The rejections are respectfully traversed.

Applicants' claim 1 recites the following features:

"1. A method for providing trick mode operations for sub-channels of multiplexed streams stored by a digital storage medium, comprising the steps of:

'receiving at the recording device, a trick mode command specifying a particular sub-channel of a multiplexed stream;

'identifying frame data stored by the digital storage medium corresponding to the particular sub-channel; and

'extracting, from the frame data, trick mode data for the particular sub-channel."

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Independent claim 9 recites the following features:

“9. In combination with a digital storage medium coupled to a receiver, a method for providing trick mode operations for sub-channels of multiplexed streams stored on the digital storage medium, comprising the steps of:

‘receiving, from the receiver, a trick mode command specifying a particular sub-channel of a multiplexed stream; and
‘sending, to the receiver, in response to receiving the trick mode command, frame data corresponding to the particular sub-channel stored by the digital storage medium for extraction of trick mode data there from, the trick mode data corresponding to the particular sub-channel.”

In rejecting Applicants’ claims, the Examiner appears to confuse Intra coded frames, i.e., I-frames, with a sub-channel. As explicitly defined at page 4, lines 16-18 of the Applicants’ specification, “the term ‘sub-channel’ refers to a program within a digital stream that does not constitute the first or ‘primary’ program of that digital stream”. In contrast, an Intra coded frame (also known as an I-frame) constitutes a picture within a group of pictures) that does not rely upon information from any other frames for decoding. In contrast, P and B frames, which denote predictive and bi-predictive, frames, respectively, require information from other frames for decoding. An I-frame can appear at the beginning of a group of pictures in a primary program corresponding to the primary channel or in a non-primary program corresponding to a sub-channel, in an environment where multiple streams (programs) are multiplexed together into a multiplexed stream as essentially recited in Claims 1 and 9.

Van Gestel does not concern itself with sub-channels at all, let alone, “sub-channels of multiplexed streams stored on the digital storage medium”, as recited in Claims 1 and 9, as readily evidenced by the fact that Van Gestel does not include even one mention of the word “sub-channel” or the word “subchannel”.

In particular, the recitation of “sub-channels of multiplexed streams stored on the digital storage medium” has no relevance to Van Gestel, as Van Gestel discloses

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that "[t]he recording arrangement comprises an input terminal 11 for receiving the MPEG SERIAL datastream for recording transport packets included in the datastream in the signal blocks of the track portions TP3' of the tracks" (Van Gestel, col. 10, lines 59-63) (emphasis added). Hence, contrary to the features of Claims 1 and 9 relating to "sub-channels of multiplexed streams stored by/on a digital storage medium", the recording arrangement of Van Gestel receives and records an MPEG SERIAL (i.e., NON-MULTIPLEXED) stream. To the extent that Van Gestel discloses a multiplexer, such disclosure relates to outputs of a normal play processing unit 14 and a trick play processing unit 16, both of which process the input MPEG serial datastream and, hence, do not involve sub-channels. To further illustrate that the multiplexer does not relate to any additional programs or sub-channels, but rather only to the application of a trick mode to the input MPEG serial stream, applicants direct the examiner's attention to the following disclosure from Van Gestel:

"[i]t will be clear that in the absence of the 'trick play' processing unit 16, also the multiplexer 22 will be absent" (Van Gestel, col. 11, lines 3-5).

Applicants note that the recitations in their specification and claims to sub-channel directly relate to the problem solved by applicants' invention, namely overcoming the inability of conventional equipment to properly deal with trick mode operation for sub-channels (see, e.g., Applicants' specification, p. 1, line 11 to p. 2, line 2; see also Applicants' specification, p. 7, line 18 to p. 8, line 8).

As recited in the Abstract of Van Gestel, if any additional information is recorded on a recording medium relating to the input MPEG serial data stream, the additional information relates to the specific application of recording and reproducing the MPEG information signal (i.e., input MPEG SERIAL data stream) on/from the record carrier. In further detail, the additional information relates to error correction of the input MPEG SERIAL datastream and not to any sub-channels of a multiplexed stream (see, e.g., Van Gestel, col. 11, lines 37-49).

Hence, in the absence of any sub channels in the input MPEG SERIAL data stream, it is clear that Van Gestel does not teach or suggest Applicants' step of, "receiving at the recording device, a trick mode command specifying a particular sub-channel of a multiplexed stream", or "identifying frame data stored by the

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digital storage medium corresponding to the particular sub-channel, or
"extracting, from the frame data, trick mode data for the particular sub-channel", as recited in Claim 1. Moreover, for the same reason, Van Gestel does not teach or suggesting Applicants' step of "receiving, from the receiver, a trick mode command specifying a particular sub-channel of a multiplexed stream", or "sending, to the receiver, in response to receiving the trick mode command, frame data corresponding to the particular sub-channel" stored by the digital storage medium for extraction of trick mode data there from, the trick mode data corresponding to the particular sub-channel", as recited in Claim 9.

Applicants respectfully assert that the Darshan patent does not cure the deficiencies of Van Gestel with respect to sub channels and remains silent with respect to the above reproduced features of Claims 1 and 9.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, Claims 1 and 9 patentably distinguish obvious over the cited references for at least the reasons set forth above.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art" (MPEP §2143.03, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Moreover, "[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious" (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Claims 2-8 directly or indirectly depend from Claim 1, and Claims 10-14 directly or indirectly depend from Claim 9. Accordingly, Claims 2-8 and 10-14 patentably distinguish over the cited references for at least the reasons set forth above with respect to Claims 1 and 9. Applicants request withdrawal of the rejections of these claims.

As noted earlier, Applicants new claims 15 and 16 have been added. Support for Claims 15 and 16 appears at least at page 1, lines 15-18, page 4, lines 16-18, page 5, line 24 to page 6, line 16, and page 7, line 1 to page 8, line 8. None of the cited references, either taken singly or in any combination, teach or suggest the following limitations of Claims 15 and 16:

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"wherein the multiplexed streams relate to at least a primary program and at least one other program different from the primary program, the primary program corresponding to a primary channel, and the at least one other program corresponding to the particular sub-channel."

Rather, as noted above, the Van Gestel relates to an MPEG SERIAL stream and, hence, a single program, similar to Darshan (see, e.g., Darshan, Abstract). Thus, neither reference, nor their combination, discloses the above recited limitations of Claims 15 and 16. Therefore, Claims 15 and 16 patentably distinguish over both Van Gestel and Darshan for at least the preceding reasons. Moreover, Claims 15 and 16 respectively depend from Claims 1 and 9 and, thus, include all the limitations of Claims 1 and 9, respectively. Hence, Claims 15 and 16 are also patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to Claims 1 and 9.


Conclusion

In view of the foregoing, Applicants solicit entry of this amendment and allowance of the claims. If the Examiner cannot take such action, the Examiner should contact the ApplicantS' attorney at (609) 734-6820 to arrange a mutually convenient date and time for a telephonic interview.

No fees are believed due with regard to this Amendment. Please charge the fee, and/or credit any overpayment, to Deposit Account No. 07-0832.

Respectfully submitted,
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